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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,045	06/24/2006	Yoshimi Baba	CS-28-051212-PCT	8201
22712	7590	01/31/2007		
PAUL A. GUSS PAUL A. GUSS ATTORNEY AT LAW 775 S 23RD ST FIRST FLOOR SUITE 2 ARLINGTON, VA 22202			EXAMINER EDGAR, RICHARD A	
			ART UNIT 3745	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/560,045

Applicant(s)

BABA ET AL.

Examiner

Richard Edgar

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/8/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to because the numeral "105" in FIG. 1 should be -- 106 -- based on the specification.

The generator 40 must be labeled since a rectangular box is not a recognized graphical drawing symbol for a generator (see 37 C.F.R. §1.83(a)).

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "wind directing measuring means" and "duct slope control means" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

Art Unit: 3745

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 4,132,499 (Igra hereinafter).

Igra show a wind power generator, comprising: an approximately cylindrical duct with the side cross-section thereof having a wing-like shape 2 (see FIG. 1);

a streamlined pencil body 4 coaxially installed with the duct;

an impeller 6 constituting a part of the pencil body 4 and capable of rotating about a duct axis in an inner portion of the duct by a force of wind flowing in the inner portion of the duct; and

a power generator (see col. 2, lines 29-30) for converting a rotational motion of the impeller into electric energy; wherein

a maximum wing thickness position is nearer a leading edge than a center of the chord in the side cross-sectional wing-like shape of the duct (see FIG. 1), an opening diameter of a front end of the duct made smaller than an opening diameter of a rear

Art Unit: 3745

end, and an outer diameter of the duct is made approximately uniform at least in a rear portion of the duct (see FIG. 1),

the pencil body 4 is installed such that a front end portion is positioned rearward from a front end portion of the duct and a rear end portion is positioned forward from a rear end portion of the duct (see FIG. 1), and

a ratio of maximum outer diameter of the duct with respect to a minimum inner diameter of the duct is within a range between 2.0 and 4.3 (see Figure 1 below).

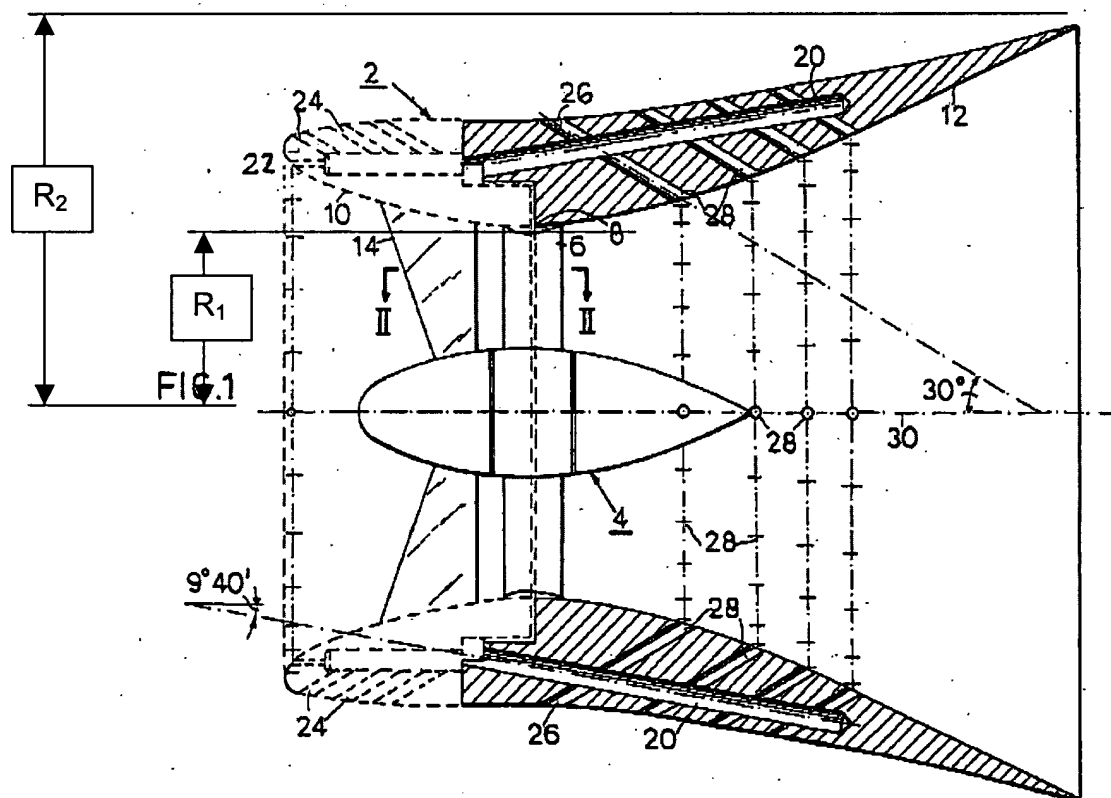


Figure 1. Annotated view of Igra FIG. 1

In FIG. 3 of Igra, an approximately annular flap plate 40 is provided with protrudes in the outer diameter direction of the duct.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 4,132,499 (Igra hereinafter).

Igra does not show the flap with a width ratio between 0.020 and 0.15 when measured relative to the rear end radius of the duct.

Applicants have not disclosed the range solves any stated problem or is for any particular purpose. Moreover, it appears that the flap of Igra, or applicant's invention, would perform equally well with a width smaller than the rear end radius.

Accordingly, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have modified Igra such that the flap width ratio is in the range of 0.020 and 0.15 when measured relative to the rear end radius of the duct because such a modification would have been considered a mere design consideration which fails to patentably distinguish over Igra.

Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 4,132,499 (Igra hereinafter) as applied to claims 1 and 2 respectfully above, and further in view of European Patent Application Publication EP 0045202.

Igra does not show a means for orienting the wind generator.

EP 0045202 shows a wind generator having horizontal stabilizers 6 and vertical stabilizers 3a for the purpose of orienting the wind generator into the wind. One skilled in the art appreciates a plus/minus 10 degree angle from the wind direction is taught by the EP 0045202 reference based on ordinary wind currents.

At the time the invention was made it would have been obvious to a person having ordinary skill in the art to modify the Igra wind generator with the stabilizers as shown in EP 0045202 for the purpose of orienting the wind generator into the wind.

Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 4,132,499 (Igra hereinafter) as applied to claims 1 and 2 respectfully above, and further in view of United States Patent No. 3,883,750 (Uzzell, Jr. hereinafter).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 4,132,499 (Igra hereinafter) in view of European Patent Application Publication EP 0045202 as applied to claim 3 above, and further in view of United States Patent No. 3,883,750 (Uzzell, Jr. hereinafter).

Igra does not appear to show oval blades cutoff between 0.82 and 0.87 of the length of the oval.

Uzzell, Jr. show blades for a wind generator being oval in shape and cutoff near a long end (see FIG. 2).

Since Igra is a wind generator with blades rotating inside a duct, and Uzzell, Jr. teach to shape the blades of the impeller inside a duct as ovals with one side cut-off, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the blades of Igra to be oval-shaped as shown by Uzzell, Jr. for the purpose of increasing the efficiency of the generator.

Furthermore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to cut-off the oval between 0.82 and 0.87 of the length of the blade as a design choice, since Applicants have not disclosed the range solves any stated problem or is for any particular purpose. Moreover, it appears that the blade of Uzzell, Jr., or applicant's invention, would perform equally well with the cut-off at length near the end of the blade.

Accordingly, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have modified Uzzell, Jr. such that the cut-off on the blade is in the range of 0.82 to 0.87 of the length of the blade because such a modification would have been considered a mere design consideration which fails to patentably distinguish over Uzzell, Jr.

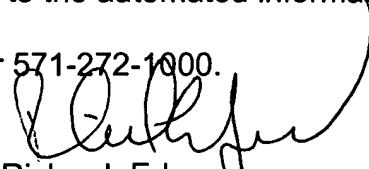


**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Edgar whose telephone number is (571) 272-4816. The examiner can normally be reached on Mon.-Thur. and alternate Fri., 7 am- 5 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Richard Edgar  
Primary Examiner  
Art Unit 3745

RE